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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,654	02/04/2004	Naoya Kotani	10746/38	6186

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EXAMINER
AMIN, JWALANT B

ART UNIT	PAPER NUMBER
2676	

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
	10/772,654	KOTANI ET AL.
Office Action Summary	Examiner	Art Unit	
	Jwalant Amin	2676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>04 February 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
    closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>13,15,17,37,39,41,59,61,63 and 78-95</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) <u>13,15,17,37,39,41,59,61,63,78-80,84-86 and 90-92</u> is/are rejected.

7)☐ Claim(s) <u>81-83,87-89 and 93-95</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on <u>04 February 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☒ Certified copies of the priority documents have been received in Application No. <u>09/577,511</u>.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
          application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-12, 14, 16, 18-36, 38, 40, 42-58, 60, 62, 64-77 have been cancelled by

the applicant.

Double Patenting

2.   A rejection based on double patenting of the "same invention" type finds its
support in the language of 35 U.S.C. 101 which states that "whoever invents or
discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis
added). Thus, the term "same invention," in this context, means an invention drawn to
identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re
Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164
USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by
canceling or amending the conflicting claims so they are no longer coextensive in
scope. The filing of a terminal disclaimer <u>cannot</u> overcome a double patenting rejection
based upon 35 U.S.C. 101.

3.   Claims 13, 15, 17, 37, 39, 41, 59, 61 and 63 are rejected under 35 U.S.C. 101 as

claiming the same invention as that of claims 13-16, 26-30 and 38-41 of prior U.S.

Patent No. 6,768,488. This is a double patenting rejection.

4.   Claim 13 is same as claims 13 and 16 (Patent No. 6,768,488).

5.   Claim 15 is same as claim 14 (Patent No. 6,768,488).

6.   Claim 17 is same as claim 15 (Patent No. 6,768,488).

7.   Claim 37 is same as claims 26, 29, and 30 (Patent No. 6,768,488).

8.   Claim 39 is same as claim 27 (Patent No. 6,768,488).

9.   Claim 41 is same as claim 28 (Patent No. 6,768,488).

10.   Claim 59 is same as claims 38 and 41 (Patent No. 6,768,488).

11.   Claim 61 is same as claim 39 (Patent No. 6,768,488).

12.   Claim 63 is same as claim 40 (Patent No. 6,768,488).

Claim Rejections - 35 USC § 103

13.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

14.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

15.   Claims 13, 15, 17, 37, 39, 41, 59, 61 and 63 are rejected under 35 U.S.C. 103(a)

as being unpatentable over Hayashi (5,611,037) and further in view of Nomura et al.

(5,877,772; referred as Nomura herein).

16.   Regarding claim 13, Hayashi teaches a method and apparatus for generating

image comprising:

Extracting color information of each pixel of a line drawing to be filled, wherein

said line drawing to be filled includes a colored line which is a boundary line dividing

said line drawing to be filled into regions, a color of the boundary line specifying a color

used for filling the boundary line ("This subroutine, paints in colors with respect to areas

surrounded by generated closed curved lines by determining a color of each dot or pixel

coordinated on a raster grid plane on which the closed curved lines have been drawn",

col. 14 lines 38-42);

Extracting boundary line information representing whether said each pixel is on

the boundary line or not by using said color information ("The closed curved line

function C[k][i][j] is a boundary test instruction for checking whether the coordinate (i, j)

on the raster grid plane locates on a boundary of an object of No.k...the color condition

Cflag [k] flag of object NO.k is changed to color data of the closed curved line No.k",

col. 15 lines 29-37);

Filling said line drawing except the boundary line by using said boundary line

information ("For each image object enclosed by a closed curved line, the process tests

the coordinate to see whether it is included in the object or not. When an image object

does not overlap with any other image object, it is painted with the color of a closed

curved line enclosed by a closed curve line", col. 16 lines 53-58). It is further noted that

since the boundary line was filled prior to this step, therefore, the drawing was filled

except the boundary lines;

Filling said colored line by using said boundary line information ("In a subsequent

step S22, closed curved lines A to F are generated according to the loaded closed

curved line generating data A to F...and then painted in predetermined colors", col. 9

lines 16-24 and lines 34-62);

Boundary line information of coordinates represents a region other than the

boundary line, obtaining color information of said coordinates; boundary line information

of coordinates represents the boundary line, providing said obtained color information to

said coordinates ("If the coordinate locates in an area enclosed by a drawn closed

curved line and locates outside of an area enclosed by any other drawn closed curved

line, the color thereof is determined by stored color data assigned to that drawn closed

curved line" and "The closed curved line function C[k][i][j] is a boundary test instruction

for checking whether the coordinate (i, j) on the raster grid plane locates on a boundary

of an object of No.k...the color condition Cflag [k] flag of object NO.k is changed to color

data of the closed curved line No.k", col.14 lines 47-51 and col. 15 lines 29-37).

It is noted that Hayashi does not discloses a pointing device. However this is

known in the art taught by Nomura. Nomura teaches a graphic processing apparatus

that "the user then makes a request to paint regions with colors by means of a pointing

device" (col. 12 lines 63-65). It would have been obvious at the time invention was

made to one of ordinary skill in the art to utilize the teaching of using a pointing device

taught by Nomura to provide the functionality of allowing users to select the region they

desired to perform the filling process.

17.   Regarding claim 15, Hayashi teaches a method and apparatus for generating

image comprising:

Extracting color information of each pixel by scanning said line drawing to be

filled ("This subroutine, paints in colors with respect to areas surrounded by generated

closed curved lines by determining a color of each dot or pixel coordinated on a raster

grid plane on which the closed curved lines have been drawn (see 11-16 in Fig. 4)", col.

14 lines 38-42);

Setting codes according to the kind of said colored line and regions other than boundary line ("When there are 6 closed curved lines, they are numbered by 0 to 5 in the priority decreasing order while the background is numbered by 6", col. 15 lines 56-58).

It is noted that Hayashi does not discloses the steps of comparing R, G, B values of said color information with predetermined R, G, B thresholds. However this is known in the art taught by Nomura. Nomura teaches a graphic processing apparatus that "If the data represents a picture element close to the black color, that is, if the sum of the RGB values is equal to or smaller than typically 30, the address of the picture element is stored" (col. 13 lines 34-37). It would have been obvious at the time invention was made to one of ordinary skill in the art to utilize the teachings to comparing R, G, B values of said color information with predetermined R, G, B thresholds taught by Nomura to provide the functionality of detecting the boundary line of closed regions ("In this way, all picture elements of the black color connected to each other to enclose the closed region including the specified point are identified", col. 13 lines 45-47).

18.   Regarding claim 17, Hayashi teaches a method and apparatus for generating image comprising:

Providing specified color information to a region which includes coordinates when said coordinates are within said line drawing to be filled and said boundary line information of said coordinates represents a region other than the boundary line ("If the coordinate locates in an area enclosed by a drawn closed curved line and locates outside of an area enclosed by any other drawn closed curved line, the color thereof is

determined by stored color data assigned to that drawn closed curved line", col. 14 lines 47-51).

19.   Regarding claim 37, Hayashi teaches a method and apparatus for generating image comprising:

A storage device for storing line drawings which includes a colored line which is a boundary line dividing said line drawings into regions, a color of the boundary line specifying a color used for filling the boundary line ("(A) storing a plurality of closed curved line data which define a plurality of closed curved lines on a predetermined plane; (B) storing a plurality of color data each corresponding to a different one of the plurality of closed curved lines", col. 1 lines 44-47).

A part for reading a line drawing to be filled which includes said colored line from said storage device ("(B) storing a plurality of color data each corresponding to a different one of the plurality of closed curved lines; (C) computing coordinates of each closed curved line on the predetermined plane based on the stored closed curved line data to thereby draw the plurality of closed curved lines", col. 1 lines 46-49; It is noted that computing the coordinates of closed curved line by retrieving or reading from stored information to draw the plurality of closed curved lines thus meets the limitation of the claim).

A part for extracting color information of each pixel of said line drawing to be filled ("This subroutine, paints in colors with respect to areas surrounded by generated closed curved lines by determining a color of each dot or pixel coordinated on a raster grid

plane on which the closed curved lines have been drawn (see 11-16 in Fig. 4)", col. 14 lines 38-42);

A part for extracting boundary line information representing whether said each pixel is on the boundary line or not by using said color information ("The closed curved line function C[k][i][j] is a boundary test instruction for checking whether the coordinate (i, j) on the raster grid plane locates on a boundary of an object of No.k...the color condition Cflag [k] flag of object NO.k is changed to color data of the closed curved line No.k", col. 15 lines 29-37);

A part for filling said line drawing except the boundary line by using said boundary line information ("For each image object enclosed by a closed curved line, the process tests the coordinate to see whether it is included in the object or not. When an image object does not overlap with any other image object, it is painted with the color of a closed curved line enclosed by a closed curve line", col. 16 lines 53-58). It is further noted that since the boundary line was filled prior to this step, therefore, the drawing was filled except the boundary lines;

A part for filling said colored line by using said boundary line information ("In a subsequent step S22, closed curved lines A to F are generated according to the loaded closed curved line generating data A to F...and then painted in predetermined colors", col. 9 lines 16-24 and lines 34-62);

Boundary line information of coordinates represents a region other than the boundary line, obtaining color information of said coordinates; boundary line information of coordinates represents the boundary line, providing said obtained color information to

said coordinates ("If the coordinate locates in an area enclosed by a drawn closed curved line and locates outside of an area enclosed by any other drawn closed curved line, the color thereof is determined by stored color data assigned to that drawn closed curved line" and "The closed curved line function $C[k][i][j]$ is a boundary test instruction for checking whether the coordinate (i, j) on the raster grid plane locates on a boundary of an object of No.k...the color condition Cflag [k] flag of object NO.k is changed to color data of the closed curved line No.k", col.14 lines 47-51 and col. 15 lines 29-37).

It is noted that Hayashi does not discloses a pointing device. However this is known in the art taught by Nomura. Nomura teaches a graphic processing apparatus that "the user then makes a request to paint regions with colors by means of a pointing device" (col. 12 lines 63-65). It would have been obvious at the time invention was made to one of ordinary skill in the art to utilize the teaching of using a pointing device taught by Nomura to provide the functionality of allowing users to select the region they desired to perform the filling process.

20.   Regarding claim 59, the statements presented above, with respect to claim 13 are incorporated herein.

21.   Regarding claims 39, 41, 61, and 63, the statements presented above, with respect to claims 15 and 17 are incorporated herein.

22.   Claims 78-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi (5,611,037) and Nomura et al. (5,877,772; referred as Nomura herein) as applied to claim 13 above, and further in view of Windows 95 "Paint" program (Sams Teach Yourself Windows 95 in 24 Hours, Greg M. Perry, pages 156-164).

23.   Regarding claim 78, the combination of Hayashi and Nomura teaches all of the

claimed limitation, except that when the pointing device is moved from a region to

another region across the colored line, the color of the colored line changes to the color

of the region where the pointing device is initially located. However, Windows 95 "Paint"

program teaches us this functionality. Consider the attached screen-shot of a paint

window. An ellipse is selected from the tool box of the paint window. It is noted that the

image drawn on the window has black boundary lines (colored lines). The image is filled

with blue color selected from the color box of the paint window. It is noted that the

window now has two regions (one region is the blue elliptical image and the other is the

white background) separated by black boundary lines. A brush is selected from the tool

box. It is noted that the brush here acts as a pointing device that can be moved using a

mouse. When the brush is moved from the blue image to the white background crossing

the black boundary line, the color of the boundary line changes to blue (the color of the

colored line changes to the color of the region where the pointing device is initially

located). Thus, it would have been obvious at the time invention was made to one of

ordinary skill in the art to utilize the functionalities of the Windows 95 "Paint" program in

combination to the teachings of Hayashi and Nomura to change the color of the colored

boundary line to the color of the region where the pointing device is initially located.

24.   Regarding claim 79, the combination of Hayashi and Nomura teaches all of the

claimed limitation, except that when the user pushes a pointing device button at a

brighter color region of regions divided by the colored line and moves the pointing

device on a part of the colored line where the user wants to change the color, the color

of the part where the pointing device passed through can be changed to the brighter color. However, Windows 95 "Paint" program teaches us this functionality. Consider the attached screen-shot of a paint window. An ellipse is selected from the tool box of the paint window. It is noted that the image drawn on the window has black boundary lines (colored lines). The image is filled with blue color selected from the color box of the paint window. It is noted that the window now has two regions (one region is the blue elliptical image and the other is the white background) separated by black boundary lines. A brush is selected from the tool box. It is noted that the brush here acts as a pointing device that can be moved using a mouse. When the user clicks the mouse button and moves the brush (user pushes a pointing device button) from the blue image (brighter region as blue is a color brighter than black) on a part of the black boundary line (colored line), the color of the part of the boundary line where the brush crossed the boundary line changes to blue (the color of the part where the pointing device passed through can be changed to the brighter color). Thus, it would have been obvious at the time invention was made to one of ordinary skill in the art to utilize the functionalities of the Windows 95 "Paint" program in combination to the teachings of Hayashi and Nomura to change the color of the part of the colored boundary line to the brighter color of the region by pushing a pointing device button at a brighter color region and then moving the pointing device on the part of the line where the user wants to change the color.

25.   Regarding claim 80, the combination of Hayashi and Nomura teaches all of the claimed limitation, except that when there are different color regions divided by colored

lines, a color of only a part of the colored line can be changed in the same way.
However, Windows 95 "Paint" program teaches us this functionality. Consider the
attached screen-shot of a paint window. An ellipse is selected from the tool box of the
paint window. It is noted that the image drawn on the window has black boundary lines
(colored lines). The image is filled with blue color selected from the color box of the
paint window. It is noted that the window now has two different color regions (one region
is the blue elliptical image and the other is the white background) separated by black
boundary lines. A brush is selected from the tool box. It is noted that the brush here acts
as a pointing device that can be moved using a mouse. When the user clicks the mouse
button and moves the brush (user pushes a pointing device button) from the blue image
(brighter region as blue is a color brighter than black) on a part of the black boundary
line (colored line), the color of the part of the boundary line where the brush crossed the
boundary line changes to blue (the color of only a part of the colored line can be
changed in the same way). Thus, it would have been obvious at the time invention was
made to one of ordinary skill in the art to utilize the functionalities of the Windows 95
"Paint" program in combination to the teachings of Hayashi and Nomura to change the
color of the part of the colored boundary line to the brighter color of the region by
pushing a pointing device button at a brighter color region and then moving the pointing
device on the part of the line where the user wants to change the color.

26.   Claims 84-86 are rejected under 35 U.S.C. 103(a) as being unpatentable over
Hayashi (5,611,037) and Nomura et al. (5,877,772) as applied to claim 37 above, and

further in view of Windows 95 "Paint" program (Sams Teach Yourself Windows 95 in 24

Hours, Greg M. Perry, pages 156-164).

27.   Regarding claims 84, 85, and 86, the statements presented above, with respect

to claims 37, 78, 79, and 80 are incorporated herein.

28.   Claims 90-92 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Hayashi (5,611,037) and Nomura et al. (5,877,772) as applied to claims 13 and 59

above, and further in view of Windows 95 "Paint" program (Sams Teach Yourself

Windows 95 in 24 Hours, Greg M. Perry, pages 156-164).

29.   Regarding claims 90, 91, and 92, the statements presented above, with respect

to claims 13, 59, 78, 79, and 80 are incorporated herein.

Allowable Subject Matter

30.   Claims 81-83 are objected to as being dependent upon a rejected base claim,

but would be allowable if rewritten in independent form including all of the limitations of

the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject

matter: regarding claim 81, the prior art fails to show that the colored line is filled with

the color used for filling the region enclosed by the color line at the same time when the

region is filled. Claims 82 and 83 are dependent on claim 81; therefore the examiner

gives the same reason as set forth above.

31.   Claims 87-89 are objected to as being dependent upon a rejected base claim,

but would be allowable if rewritten in independent form including all of the limitations of

the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: regarding claim 87, the prior art fails to show that the colored line is filled with the color used for filling the region enclosed by the color line at the same time when the region is filled. Claims 88 and 89 are dependent on claim 87; therefore the examiner gives the same reason as set forth above.

32.   Claims 93-95 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: regarding claim 93, the prior art fails to show that the colored line is filled with the color used for filling the region enclosed by the color line at the same time when the region is filled. Claims 94 and 95 are dependent on claim 93; therefore the examiner gives the same reason as set forth above.

33.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jwalant Amin whose telephone number is (571) 272-2455. The examiner can normally be reached on Monday - Friday 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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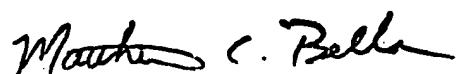
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